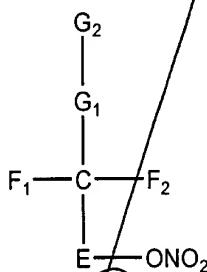


What is claimed is:

1. A method for treating pain, treating inflammation or providing analgesia in a subject,
 5 comprising administering to a subject in need thereof an effective amount of a therapeutic compound, wherein the therapeutic compound is of the formula (Ia):

10

(Ia)



15 in which E, F₁, F₂, G₁, and G₂ are the same or different organic radicals which may be joined in cyclic ring systems, and which may contain inorganic counterions;

20 with the proviso that when E and G₁ are methylene groups and F₁ is H, G₂ is not a nitrate group, nor R^N-Z^N;

wherein R^N is any aryl or heteroaryl group and Z^N is (CO)_{mm}-X^N_{nn}-Y^N_{oo};

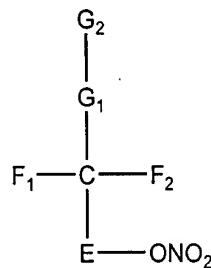
wherein mm, nn, oo are 0 or 1 and X^N, Y^N are NH, NR^{NN}, O or CH₂;

wherein R^{NN} is a short chain alkyl group (C₁ - C₁₂).

2. A method for treating pain, treating inflammation or providing analgesia in a subject, comprising administering to a subject in need thereof an effective amount of a therapeutic compound, wherein the therapeutic compound is of the formula (Ib):

25

(Ib)



in which F_2 is an organic radical which may be joined in a cyclic ring system with G_2 , and which may contain inorganic counterions; E and G_1 are both methylene groups; F_1 is H; and G_2 is R^N-Z^N ;

wherein R^N is an organic radical possessing a heteroaryl group containing P or S atoms

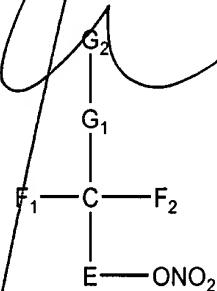
5 where said P or S are positioned β , γ , or δ to a nitrate group as identified in formula I; and Z^N is $W^N_{mm}-X^N_{nn}-Y^N_{oo}$;

wherein mm, nn and oo are 0 or 1; and W^N , X^N , Y^N are NH, NR^{NN}, CO, O or CH₂;

wherein R^{NN} is a short chain alkyl group (C₁ - C₁₂).

10 3. A method for treating pain, treating inflammation or providing analgesia in a subject, comprising administering to a subject in need thereof an effective amount of a therapeutic compound, wherein the therapeutic compound is of the formula (Ic):

(Ic)



20 in which E is $(R^1R^2C)_m$ and $G_2-G_1-CF_1F_2-$ is $R^{19}-(R^3R^4C)_p-(R^{17}R^{18}C)_n-$;

wherein: m, n, p are integers from 0 to 10;

$R^{3,17}$ are each independently hydrogen, a nitrate group, or A; and

$R^{1,4}$ are each independently hydrogen, or A;

where A is selected from a substituted or unsubstituted aliphatic group (preferably a branched or straight-chain aliphatic moiety having from 1 to 24 carbon atoms in the chain, which optionally may contain O, S, NR⁶ and unsaturations in the chain, optionally bearing from 1 to 4 hydroxy, nitrate, amino, aryl, or heterocyclic groups; an unsubstituted or substituted cyclic aliphatic moiety having from 3 to 7 carbon atoms in the aliphatic ring, which optionally may contain O, S, NR⁶ and unsaturations in the ring, optionally bearing

from 1 to 4 hydroxy, nitrate, amino, aryl, or heterocyclic groups; an unsubstituted or substituted aliphatic moiety constituting a linkage of from 0 to 5 carbons, between R¹ and R³ and/or between R¹⁷ and R⁴, which optionally may contain O, S, NR⁶ and unsaturations in the linkage, and optionally bearing from 1 to 4 hydroxy, nitrate, amino, aryl, or heterocyclic groups); a substituted or unsubstituted aliphatic group (preferably a branched, cyclic or straight-chain aliphatic moiety having from 1 to 24 carbon atoms in the chain) containing carbonyl linkages (e.g., C=O, C=S, C=NOH), which optionally may contain O, S, NR⁶ and unsaturations in the chain, optionally bearing from 1 to 4 hydroxy, nitrate, amino, aryl, or heterocyclic groups; a substituted or unsubstituted aryl group; a heterocyclic group; amino (including alkylamino, dialkylamino (including cyclic amino, diamino and triamino moieties), arylamino, diarylamino, and alkylarylamino); hydroxy; alkoxy; a substituted or unsubstituted aryloxy;

wherein X is F, Br, Cl, NO₂, CH₂, CF₂, O, NH, NMe, CN, NHOH, N₂H₃, N₂H₂R¹³, N₂HR¹³R¹⁴, N₃, S, SCN, SCN₂H₂(R¹⁵)₂, SCN₂H₃(R¹⁵), SC(O)N(R¹⁵)₂, SC(O)NHR¹⁵, SO₃M, SH, SR⁷, SO₂M, S(O)R⁸, S(O)₂R⁹, S(O)OR⁸, S(O)₂OR⁹, PO₂HM, PO₃HM, PO₃M₂, P(O)(OR¹⁵)(OR¹⁶), P(O)(OR¹⁶)(OM), P(O)(R¹⁵)(OR⁸), P(O)(OM)R¹⁵, CO₂M, CO₂H, CO₂R¹¹, C(O), C(O)R¹², C(O)(OR¹³), PO₂H, PO₂M, P(O)(OR¹⁴), P(O)(R¹³), SO, SO₂, C(O)(SR¹³), SR⁵, SSR⁷ or SSR⁵;

Y is F, Br, Cl, CH₃, CF₂H, CF₃, OH, NH₂, NHR⁶, NR⁶R⁷, CN, NHOH, N₂H₃, N₂H₂R¹³, N₂HR¹³R¹⁴, N₃, S, SCN, SCN₂H₂(R¹⁵)₂, SCN₂H₃(R¹⁵), SC(O)N(R¹⁵)₂, SC(O)NHR¹⁵, SO₃M, SH, SR⁷, SO₂M, S(O)R⁸, S(O)₂R⁹, S(O)OR⁸, S(O)₂OR⁹, PO₂HM, PO₃M₂, P(O)(OR¹⁵)(OR¹⁶), P(O)(OR¹⁶)(OM), P(O)(R¹⁵)(OR⁸), P(O)(OM)R¹⁵, CO₂M, CO₂H, CO₂R¹¹, C(O)R¹², C(O)(OR¹³), C(O)(SR¹³), SR⁵, SSR⁷ or SSR⁵, or does not exist;

R², R⁵, R¹⁸, R¹⁹ are optionally hydrogen, A or X-Y;

25 R⁶, R⁷, R⁸, R⁹, R¹¹, R¹², R¹³, R¹⁴, R¹⁵, R¹⁶ are the same or different alkyl or acyl groups containing 1-24 carbon atoms which may contain 1-4 ONO₂ substituents; or C₁ - C₆ connections to R¹ - R⁴ in cyclic derivatives which may contain 1-4 ONO₂ substituents; or are each independently hydrogen a nitrate group or A;

M is H, Na^+ , K^+ , NH_4^+ , $\text{N}^+ \text{H}_k \text{R}^{11}_{(4-k)}$ where k is 0-3; or other pharmaceutically acceptable counterion;

and with the proviso that when $m = n = p = 1$ and $\text{R}^{19}, \text{R}^2, \text{R}^{18}, \text{R}^1 = \text{H}$ and $\text{R}^{17}, \text{R}^3$ are nitrate groups, R^4 is not H.

5

4. The method of claim 1, wherein F_2 is a nitrate group; and $\text{E}, \text{F}_1, \text{G}_1, \text{G}_2$ are the same or different organic radicals which may be joined in cyclic ring systems, and which may contain inorganic counterions;

with the proviso that when E and G_1 are methylene groups and F_1 is H, G_2 is not a nitrate group, nor $\text{R}^N \text{-Z}^N$;

wherein R^N is any aryl or heteroaryl group and Z^N is $(\text{CO})_{mm} \text{-X}^N_{nn} \text{-Y}^N_{oo}$;

wherein mm, nn, oo are 0 or 1 and X^N, Y^N are NH, NR^{NN} , O or CH_2 ;

wherein R^{NN} is a short chain alkyl group ($\text{C}_1 - \text{C}_{12}$).

15

5. The method of claim 2, wherein F_2 is a nitrate group; E and G_1 are methylene groups; F_1 is H; and G_2 is $\text{R}^N \text{-Z}^N$;

wherein R^N is an organic radical possessing an heteroaryl group containing P or S atoms where said P or S are positioned β , γ , or δ to a nitrate group as identified in formula I; and Z^N is $\text{W}^N_{mm} \text{-X}^N_{nn} \text{-Y}^N_{oo}$;

20

wherein mm, nn, oo are 0 or 1 and $\text{W}^N, \text{X}^N, \text{Y}^N$ are NH, NR^{NN} , CO, O or CH_2 ;

wherein R^{NN} is a short chain alkyl group ($\text{C}_1 - \text{C}_{12}$).

6. The method of claim 3, wherein R^{19} is X-Y.

25

7. The method of claim 6, wherein:

R^1 and R^3 are the same or different and selected from H and $\text{C}_1\text{-C}_4$ alkyl chains, which chains may include one O linking R^1 and R^3 to form pentosyl, hexosyl, cyclopentyl, or cyclohexyl rings, which rings may optionally bear hydroxyl substituents;

R^2 and R^4 are the same or different and selected from H, a nitrate group, C_1 - C_4 alkyl chains optionally bearing 1-3 nitrate groups, and acyl groups (- $C(O)R^5$);

R^7 , R^{11} are the same or different C_1 - C_8 alkyl or acyl;

R^5 , R^6 , R^8 , R^9 , R^{12} , R^{13} , R^{14} , R^{15} , R^{16} are the same or different and are alkyl groups

5 containing 1-12 carbon atoms which may contain 1-4 ONO_2 substituents; or C_1 or C_2 connections to R^1 - R^3 in cyclic derivatives; and

M is H, Na^+ , K^+ , NH_4^+ or $N^+H_kR^{11}_{(4-k)}$, where k is 0-3.

8. The method of claim 7, wherein $m = 1$, $n = 0$, $p = 1$.

10

9. The method of claim 8, wherein:

X is CH_2 , O, NH, NMe, CN, NHOH, N_2H_3 , $N_2H_2R^{13}$, $N_2HR^{13}R^{14}$, N_3 , S, SCN, $SCN_2H_2(R^{15})_2$, $SCN_2H_3(R^{15})$, $SC(O)N(R^{15})_2$, $SC(O)NHR^{15}$, SO_3M , SH, SR^7 , SO_2M , $S(O)R^8$, $S(O)_2R^9$, $S(O)OR^8$, $S(O)_2OR^9$, PO_3HM , PO_3M_2 , $P(O)(OR^{15})(OR^{16})$, $P(O)(OR^{16})(OM)$, $P(O)(R^{15})(OR^8)$, $P(O)(OM)R^{15}$, CO_2M , CO_2H , CO_2R^{11} , $C(O)$, $C(O)R^{12}$, $C(O)(OR^{13})$, PO_2M , $P(O)(OR^{14})$, $P(O)(R^{13})$, SO, SO_2 , $C(O)(SR^{13})$, or SSR^4 ; and

Y is CN, $N_2H_2R^{13}$, $N_2HR^{13}R^{14}$, N_3 , SCN, $SCN_2H_2(R^{15})_2$, $SC(O)N(R^{15})_2$, $SC(O)NHR^{15}$, SO_3M , SR^4 , SO_2M , PO_3HM , PO_3M_2 , $P(O)(OR^{15})(OR^{16})$, $P(O)(OR^{16})(OM)$, $P(O)(R^{15})(OR^8)$, $P(O)(OM)R^{15}$, CO_2M , CO_2H , CO_2R^{11} , $C(O)R^{12}$, $C(O)(SR^{13})$, SR^5 , or SSR^5 , or does not exist.

20

10. The method of claim 8, wherein:

R^5 , R^6 , R^8 , R^9 , R^{12} , R^{13} , R^{14} , R^{15} , R^{16} are the same or different and are alkyls containing 1-12 carbon atoms; or C_1 or C_2 connections to R^1 or R^3 in cyclic derivatives;

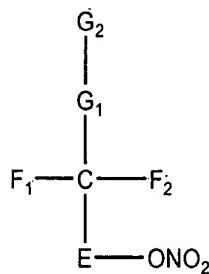
X is CH_2 , O, NH, NMe, S, SO_3M , SH, SR^7 , SO_2M , $S(O)R^8$, $S(O)_2R^9$, $S(O)OR^8$, $S(O)_2OR^9$, PO_3M_2 , $P(O)(OR^{15})(OR^{16})$, $P(O)(OR^{16})(OM)$, $P(O)(R^{15})(OR^8)$, PO_3HM or $P(O)(OM)R^{15}$; and

Y is SO_2M , SO_3M , PO_3HM , PO_3M_2 , $P(O)(OR^{15})(OR^{16})$, $P(O)(OR^{16})(OM)$, SR^5 , SR^4 or SSR^5 , or does not exist.

11. A method for providing sedation, mitigating anxiety or providing anaesthesia in a subject in need thereof, comprising administering to a subject an effective amount of a therapeutic compound, wherein the therapeutic compound is of the formula (Ia):

Sub
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(Ia)



10 in which E, F₁, F₂, G₁, G₂ are the same or different organic radicals which may be joined in cyclic ring systems, and which may contain inorganic counterions, but which do not contain an organic nitrate group;

with the proviso that when E and G₁ are methylene groups and F₁ is H, G₂ is not a nitrate group, nor R^N-Z^N-;

15 wherein R^N is any aryl or heteroaryl group and Z^N is (CO)_{mm}-X^N_{nn}-Y^N_{oo};

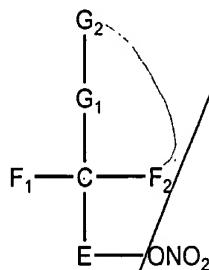
wherein mm, nn, oo are 0 or 1 and X^N, Y^N are NH, NR^{NN}, O or CH₂;

wherein R^{NN} is a short chain alkyl group (C₁ - C₁₂).

12. A method for providing sedation, mitigating anxiety or providing anaesthesia in a 20 subject in need thereof, comprising administering to a subject an effective amount of a therapeutic compound, wherein the therapeutic compound is of the formula (Ib):

25

(Ib)



in which F₂ is an organic radical which may be joined in a cyclic ring system with G₂,

and which may contain inorganic counterions, but is not a nitrate group; E and G₁ are methylene groups; F₁ is H; and G₂ is R^N-Z^N-;

wherein R^N is an organic radical possessing a heteroaryl group containing P or S atoms where said P or S are positioned β , γ , or δ to a nitrate group as identified in formula I; and Z^N 5 is W^N_{mm}-X^N_{nn}-Y^N_{oo};

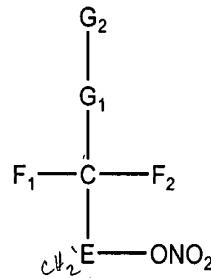
wherein mm, nn, oo are 0 or 1 and W^N, X^N, Y^N are NH, NR^{NN}, CO, O or CH₂; wherein R^{NN} is a short chain alkyl group (C₁ - C₁₂).

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13. A method for providing sedation, mitigating anxiety or providing anaesthesia in a subject in need thereof, comprising administering to a subject an effective amount of a therapeutic compound, wherein the therapeutic compound is of the formula (Ic):



in which E is (R¹R²C)_m and G₂-G₁-CF₁F₂- is R¹⁹-(R³R⁴C)_p-(R¹⁷R¹⁸C)_n-;

wherein: m, n, p are integers from 0 to 10;

20 R^{3,17} are each independently hydrogen, a nitrate group, or A; and

R^{1,4} are each independently hydrogen, or A;

where A is selected from a substituted or unsubstituted aliphatic group (preferably a branched or straight-chain aliphatic moiety having from 1 to 24 carbon atoms in the chain, which optionally may contain O, S, NR⁶ and unsaturations in the chain, optionally bearing 25 from 1 to 4 hydroxy, nitrate, amino, aryl, or heterocyclic groups; an unsubstituted or substituted cyclic aliphatic moiety having from 3 to 7 carbon atoms in the aliphatic ring, which optionally may contain O, S, NR⁶ and unsaturations in the ring, optionally bearing from 1 to 4 hydroxy, nitrate, amino, aryl, or heterocyclic groups; an unsubstituted or substituted aliphatic moiety constituting a linkage of from 0 to 5 carbons, between R¹ and R³

and/or between R^{17} and R^4 , which optionally may contain O, S, NR⁶ and unsaturations in the linkage, and optionally bearing from 1 to 4 hydroxy, nitrate, amino, aryl, or heterocyclic groups); a substituted or unsubstituted aliphatic group (preferably a branched, cyclic or straight-chain aliphatic moiety having from 1 to 24 carbon atoms in the chain) containing

5 carbonyl linkages (e.g., C=O, C=S, C=NOH), which optionally may contain O, S, NR⁶ and unsaturations in the chain, optionally bearing from 1 to 4 hydroxy, nitrate, amino, aryl, or heterocyclic groups; a substituted or unsubstituted aryl group; a heterocyclic group; amino (including alkylamino, dialkylamino (including cyclic amino, diamino and triamino moieties), arylamino, diarylamino, and alkylarylamino); hydroxy; alkoxy; a substituted or unsubstituted aryloxy;

10 wherein X is F, Br, Cl, NO₂, CH₂, CF₂, O, NH, NMe, CN, NHOH, N₂H₃, N₂H₂R¹³, N₂HR¹³R¹⁴, N₃, S, SCN, SCN₂H₂(R¹⁵)₂, SCN₂H₃(R¹⁵), SC(O)N(R¹⁵)₂, SC(O)NHR¹⁵, SO₃M, SH, SR⁷, SO₂M, S(O)R⁸, S(O)₂R⁹, S(O)OR⁸, S(O)₂OR⁹, PO₂HM, PO₃HM, PO₃M₂, P(O)(OR¹⁶)(OR¹⁶), P(O)(OR¹⁶)(OM), P(O)(R¹⁵)(OR⁸), P(O)(OM)R¹⁵, CO₂M, CO₂H, CO₂R¹¹, C(O), C(O)R¹², C(O)(OR¹³), PO₂H, PO₃M, P(O)(OR¹⁴), P(O)(R¹³), SO, SO₂, C(O)(SR¹³), SR⁵, SSR⁷ or SSR⁵;

15 Y is F, Br, Cl, CH₃, CF₂H, CF₃, OH, NH₂, NHR⁶, NR⁶R⁷, CN, NHOH, N₂H₃, N₂H₂R¹³, N₂HR¹³R¹⁴, N₃, S, SCN, SCN₂H₂(R¹⁵)₂, SCN₂H₃(R¹⁵), SC(O)N(R¹⁵)₂, SC(O)NHR¹⁵, SO₃M, SH, SR⁷, SO₂M, S(O)R⁸, S(O)₂R⁹, S(O)OR⁸, S(O)₂OR⁹, PO₂HM, PO₃M₂, P(O)(OR¹⁵)(OR¹⁶), P(O)(OR¹⁶)(OM), P(O)(R¹⁵)(OR⁸), P(O)(OM)R¹⁵, CO₂M, CO₂H, CO₂R¹¹, C(O)R¹², C(O)(OR¹³), C(O)(SR¹³), SR⁵, SSR⁷ or SSR⁵, or does not exist;

20 R², R⁵, R¹⁸, R¹⁹ are optionally hydrogen, A or X-Y;

25 R⁶, R⁷, R⁸, R⁹, R¹¹, R¹², R¹³, R¹⁴, R¹⁵, R¹⁶ are the same or different alkyl or acyl groups containing 1-24 carbon atoms which may contain 1-4 ONO₂ substituents; or C₁ - C₆ connections to R¹ - R⁴ in cyclic derivatives which may contain 1-4 ONO₂ substituents; or are each independently hydrogen a nitrate group or A;

M is H, Na⁺, K⁺, NH₄⁺, N⁺H_kR¹¹_(4-k) where k is 0-3; or other pharmaceutically acceptable counterion;

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cont.

and with the proviso that when $m = n = p = 1$ and $R^{19}, R^2, R^{18}, R^1 = H$ and R^{17}, R^3 are nitrate groups, R^4 is not H.

14. The method of claim 11, wherein F_2 is a nitrate group; and E, F_1, G_1, G_2 are the same or different organic radicals which may be joined in cyclic ring systems, and which may contain inorganic counterions;

with the proviso that when E and G_1 are methylene groups and F_1 is H, G_2 is not a nitrate group, nor R^N-Z^N ;

wherein R^N is any aryl or heteroaryl group and Z^N is $(CO)_{mm}-X^N_{nn}-Y^N_{oo}$;

wherein mm, nn, oo are 0 or 1 and X^N, Y^N are NH, NR^{NN}, O or CH₂;

wherein R^{NN} is a short chain alkyl group (C₁ - C₁₂).

15. The method of claim 12, wherein F_2 is a nitrate group; E and G_1 are methylene groups; F_1 is H; and G_2 is R^N-Z^N ;

wherein R^N is an organic radical possessing an heteroaryl group containing P or S atoms where said P or S are positioned β, γ , or δ to a nitrate group as identified in formula I; and Z^N is $W^N_{mm}-X^N_{nn}-Y^N_{oo}$;

wherein mm, nn, oo are 0 or 1 and W^N, X^N, Y^N are NH, NR^{NN}, CO, O or CH₂;

wherein R^{NN} is a short chain alkyl group (C₁ - C₁₂).

16. The method of claim 13, wherein R^{19} is X-Y.

17. The method of claim 16, wherein:

R^1 and R^3 are the same or different and selected from H and C₁-C₄ alkyl chains, which chains may include one O linking R^1 and R^3 to form pentosyl, hexosyl, cyclopentyl, or cyclohexyl rings, which rings may optionally bear hydroxyl substituents;

R^2 and R^4 are the same or different and selected from H, a nitrate group, C₁-C₄ alkyl chains optionally bearing 1-3 nitrate groups, and acyl groups (-C(O)R⁵);

R^7, R^{11} are the same or different C₁ - C₈ alkyl or acyl;

→ A3

$R^5, R^6, R^8, R^9, R^{12}, R^{13}, R^{14}, R^{15}, R^{16}$ are the same or different and are alkyl groups containing 1-12 carbon atoms which may contain 1-4 ONO_2 substituents; or C_1 or C_2 connections to $R^1 - R^3$ in cyclic derivatives; and

M is H, Na^+, K^+, NH_4^+ or $N^+H_kR^{11}_{(4-k)}$, where k is 0-3.

5

18. The method of claim 17, wherein $m = 1, n = 0, p = 1$.

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19. The method of claim 18, wherein:

X is $CH_2, O, NH, NMe, CN, NHOH, N_2H_3, N_2H_2R^{13}, N_2HR^{13}R^{14}, N_3, S, SCN, SCN_2H_2(R^{15})_2, SCN_2H_3(R^{15}), SC(O)N(R^{15})_2, SC(O)NHR^{15}, SO_3M, SH, SR^7, SO_2M, S(O)R^8, S(O)_2R^9, S(O)OR^8, S(O)_2OR^9, PO_3HM, PO_3M_2, P(O)(OR^{15})(OR^{16}), P(O)(OR^{16})(OM), P(O)(R^{15})(OR^8), P(O)(OM)R^{15}, CO_2M, CO_2H, CO_2R^{11}, C(O), C(O)R^{12}, C(O)(OR^{13}), PO_2M, P(O)(OR^{14}), P(O)(R^{13}), SO, SO_2, C(O)(SR^{13}),$ or SSR^4 ; and

Y is $CN, N_2H_2R^{13}, N_2HR^{13}R^{14}, N_3, SCN, SCN_2H_2(R^{15})_2, SC(O)N(R^{15})_2, SC(O)NHR^{15}, SO_3M, SR^4, SO_2M, PO_3HM, PO_3M_2, P(O)(OR^{15})(OR^{16}), P(O)(OR^{16})(OM), P(O)(R^{15})(OR^8), P(O)(OM)R^{15}, CO_2M, CO_2H, CO_2R^{11}, C(O)R^{12}, C(O)(SR^{13}), SR^5, or SSR^5, or does not exist.$

20. The method of claim 18, wherein:

$R^5, R^6, R^8, R^9, R^{12}, R^{13}, R^{14}, R^{15}, R^{16}$ are the same or different and are alkyls containing 1-12 carbon atoms; or C_1 or C_2 connections to R^1 or R^3 in cyclic derivatives;

X is $CH_2, O, NH, NMe, S, SO_3M, SH, SR^7, SO_2M, S(O)R^8, S(O)_2R^9, S(O)OR^8, S(O)_2OR^9, PO_3M_2, P(O)(OR^{15})(OR^{16}), P(O)(OR^{16})(OM), P(O)(R^{15})(OR^8), PO_3HM$ or $P(O)(OM)R^{15}$; and

Y is $SO_2M, SO_3M, PO_3HM, PO_3M_2, P(O)(OR^{15})(OR^{16}), P(O)(OR^{16})(OM), SR^5, SR^4$ or SSR^5 , or does not exist.

21. The method of claim 3, with the proviso that when $m = n = p = 1$ and $R^{19}, R^2, R^{18}, R^1 = H$ and R^{17}, R^3 are nitrate groups, R^4 is not $C_1 - C_3$ alkyl.

22. The method of claim 13, with the proviso that when $m = n = p = 1$ and R^{19}, R^2, R^{18} , $R^1 = H$ and R^{17}, R^3 are nitrate groups, R^4 is not $C_1 - C_3$ alkyl.

23. The method of any one of claims 1, 2, 3, 4 or 5, further comprising administering the
5 therapeutic compound with a pharmaceutically acceptable vehicle.

103 24. The method of any one of claims 11, 12, 13, 14 or 15, further comprising administering
the therapeutic compound with a pharmaceutically acceptable vehicle.

10 25. The method of any one of claims 1, 2, 3, 4 or 5, wherein the therapeutic compound
modulates levels of the cyclic nucleotides cGMP and/or cAMP in said subject.

104 26. The method of any one of claims 11, 12, 13, 14 or 15, wherein the therapeutic
compound modulates levels of the cyclic nucleotides cGMP and/or cAMP in said subject.

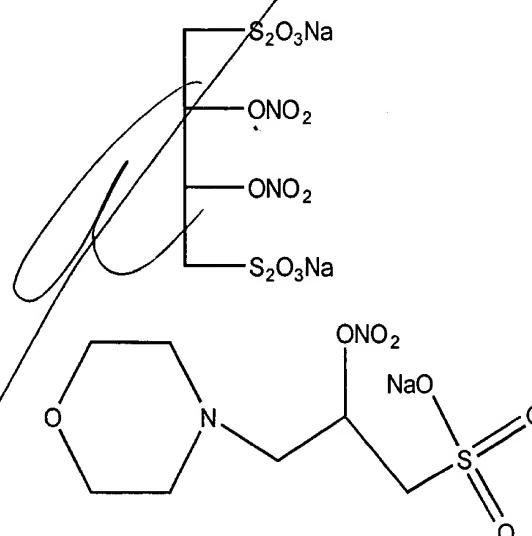
15 27. The method of any one of claims 1, 2, 3, 4 or 5, wherein the therapeutic compound
modulates guanylyl cyclase activity in said subject.

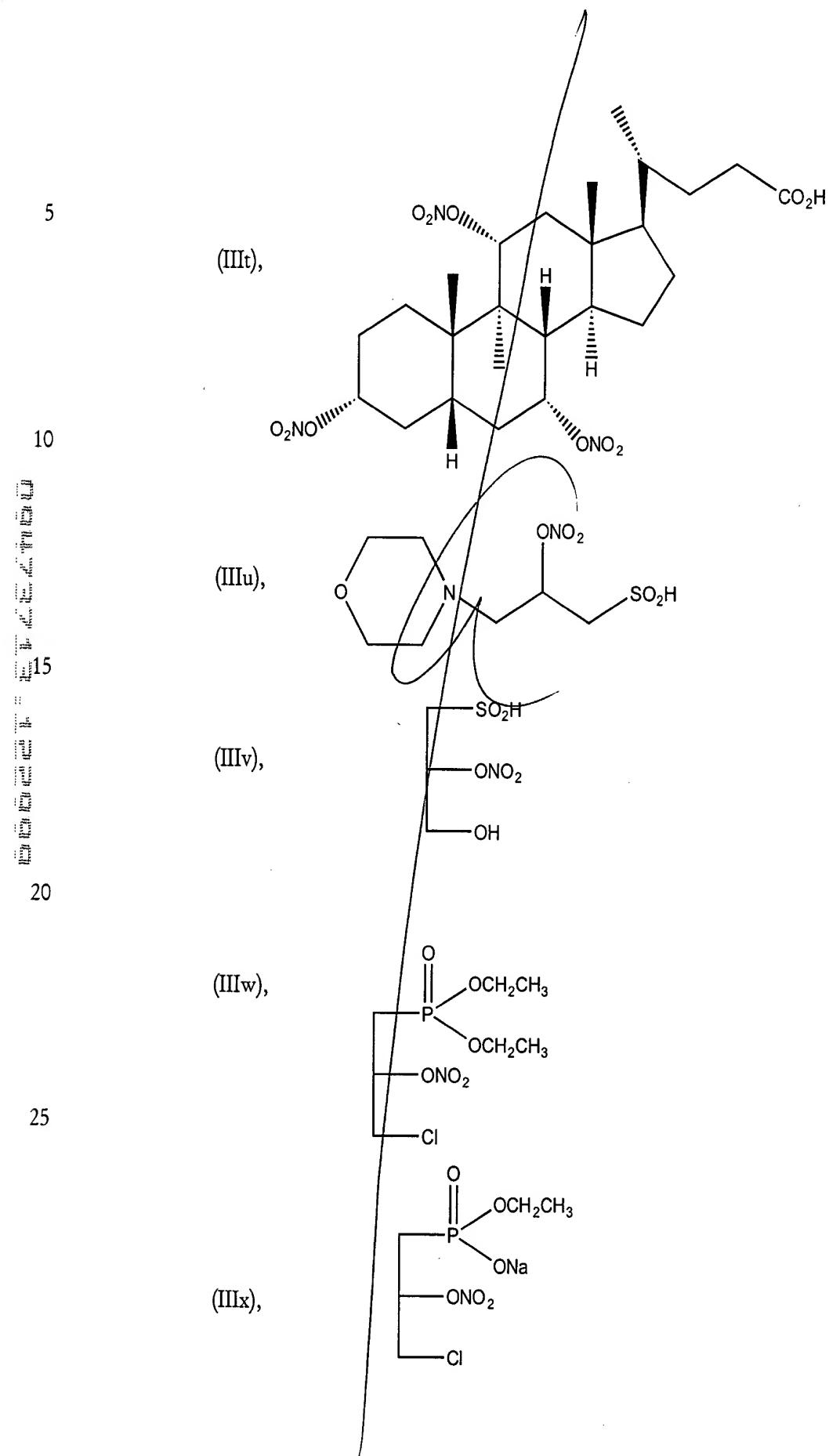
105 28. The method of any one of claims 11, 12, 13, 14 or 15, wherein the therapeutic
compound modulates guanylyl cyclase activity in said subject.

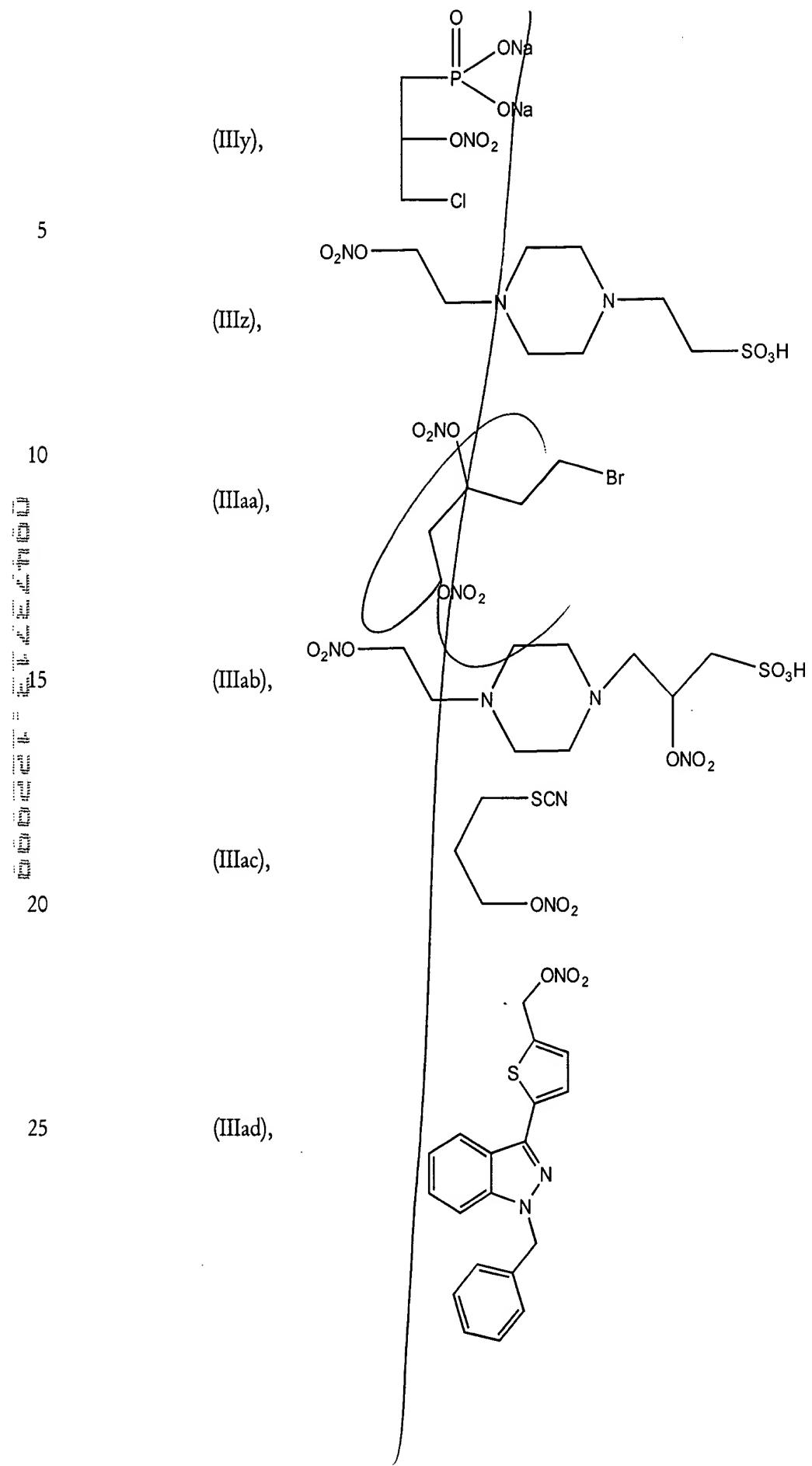
29. A compound selected from the group consisting of

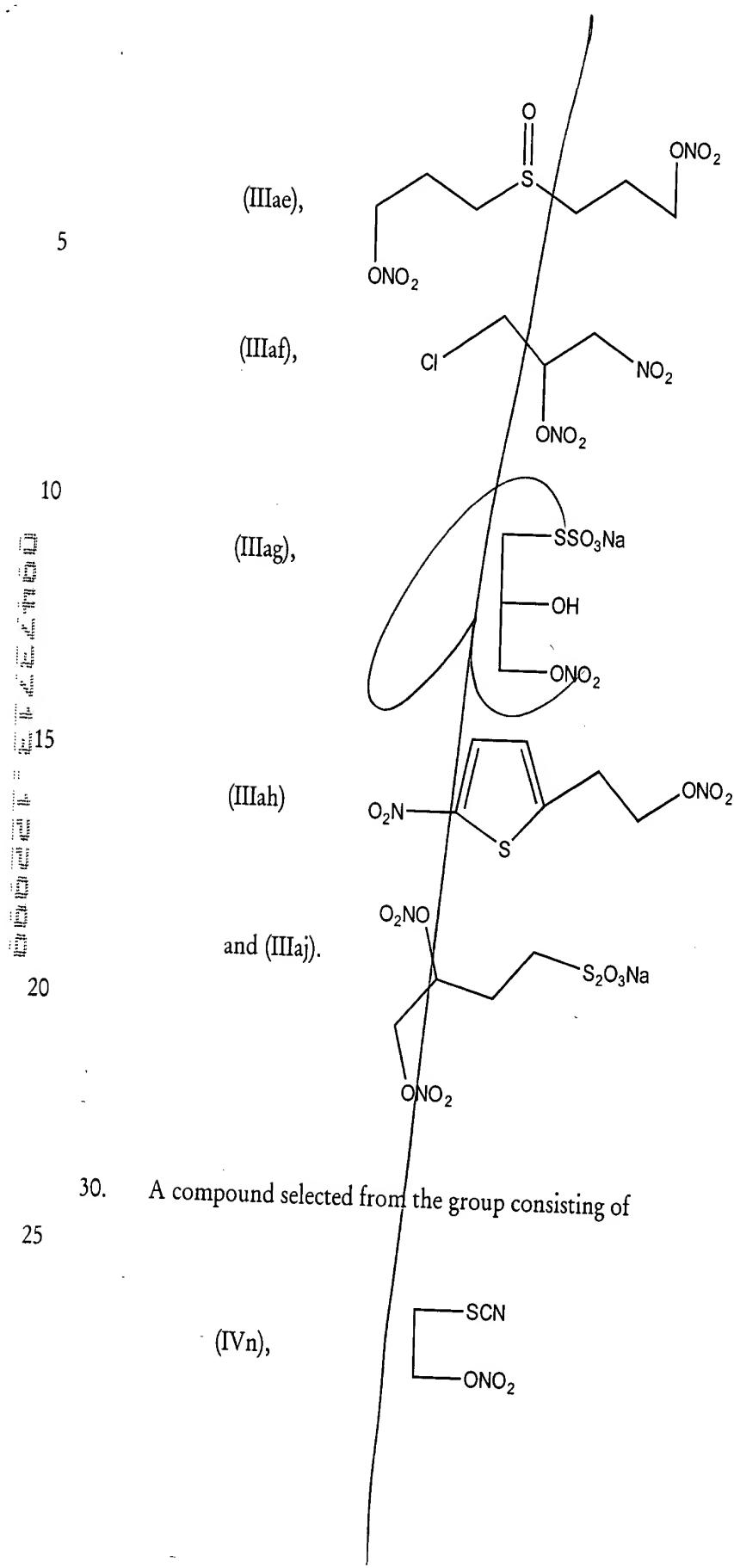
25

(IIIr),

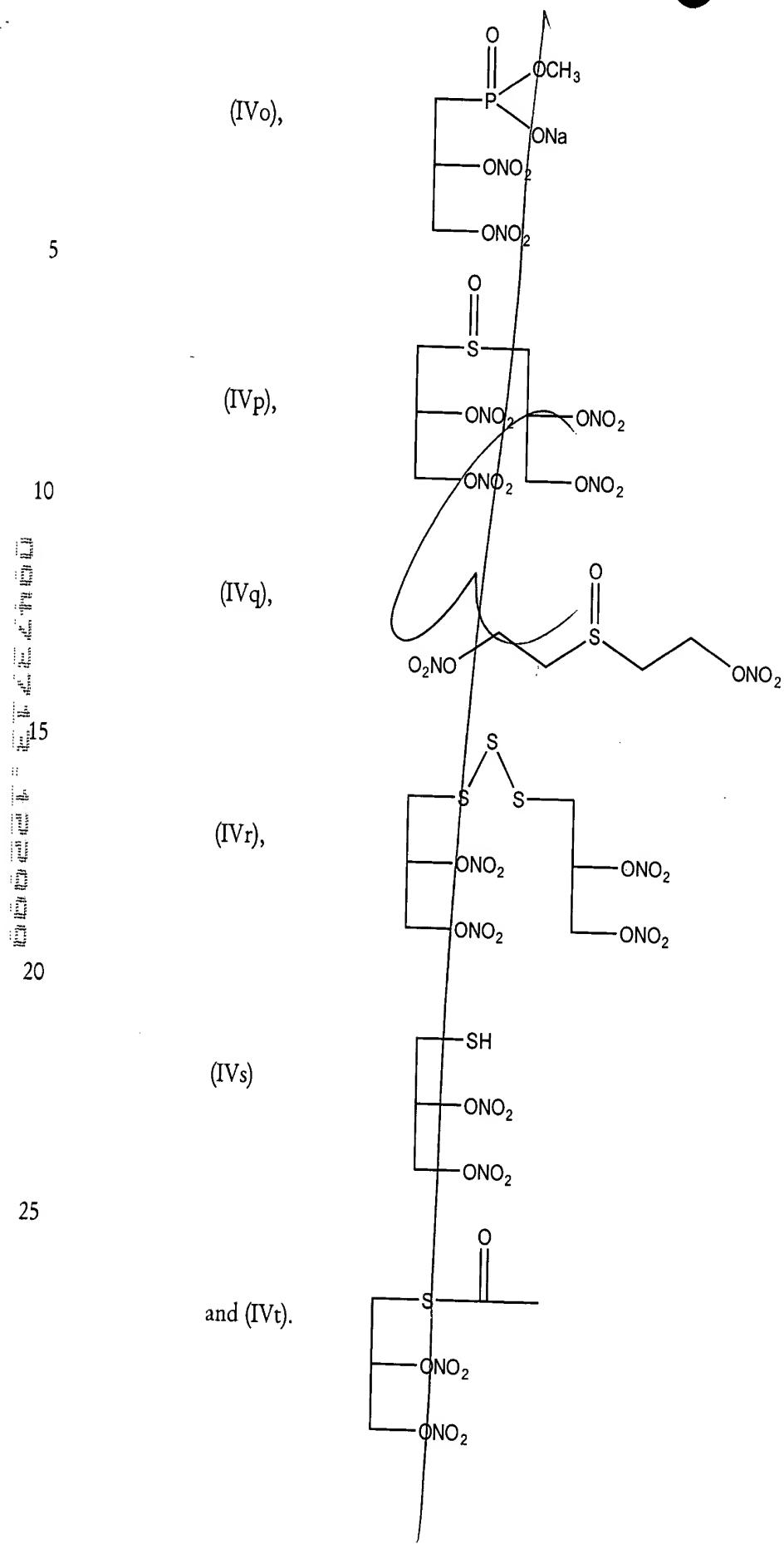








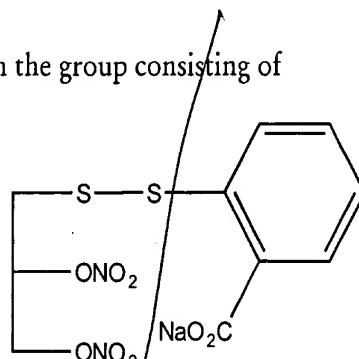
30. A compound selected from the group consisting of



31. A compound selected from the group consisting of

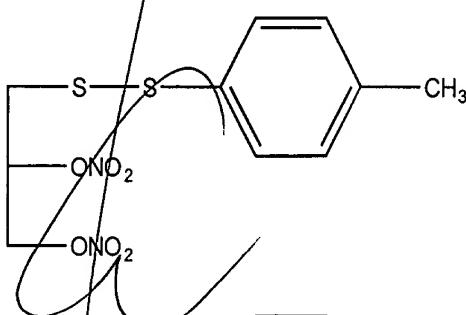
(Vd),

5



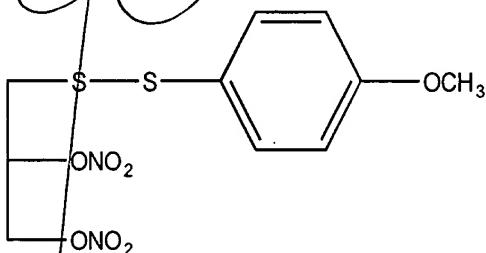
(Ve),

10



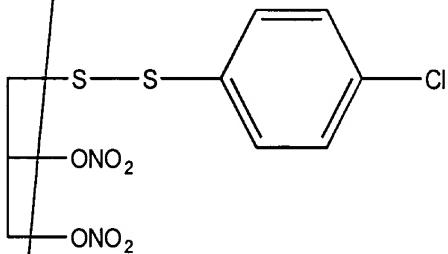
(Vf),

15



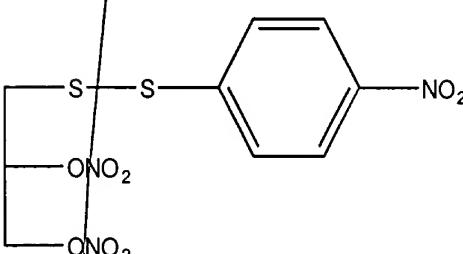
(Vg),

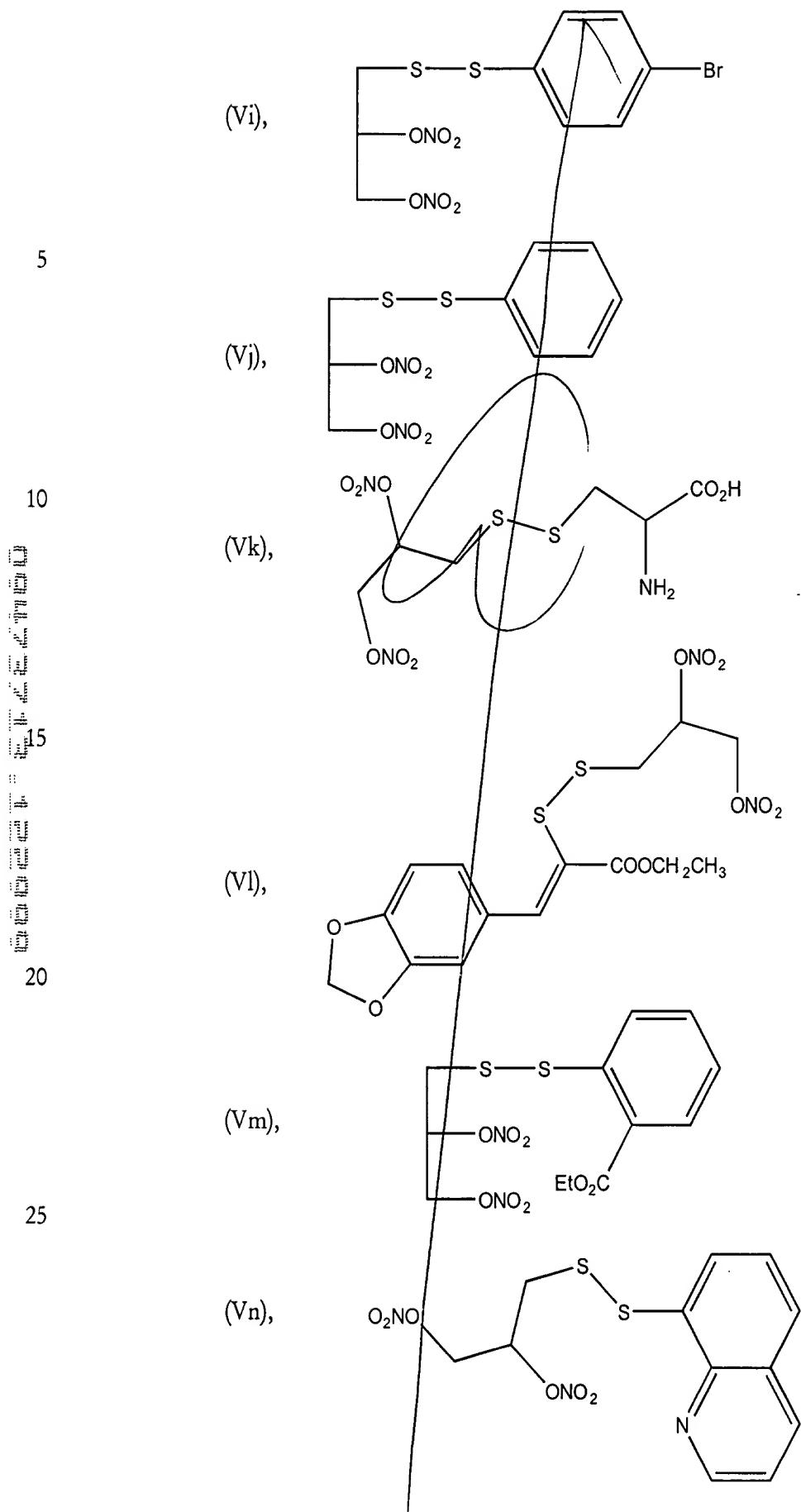
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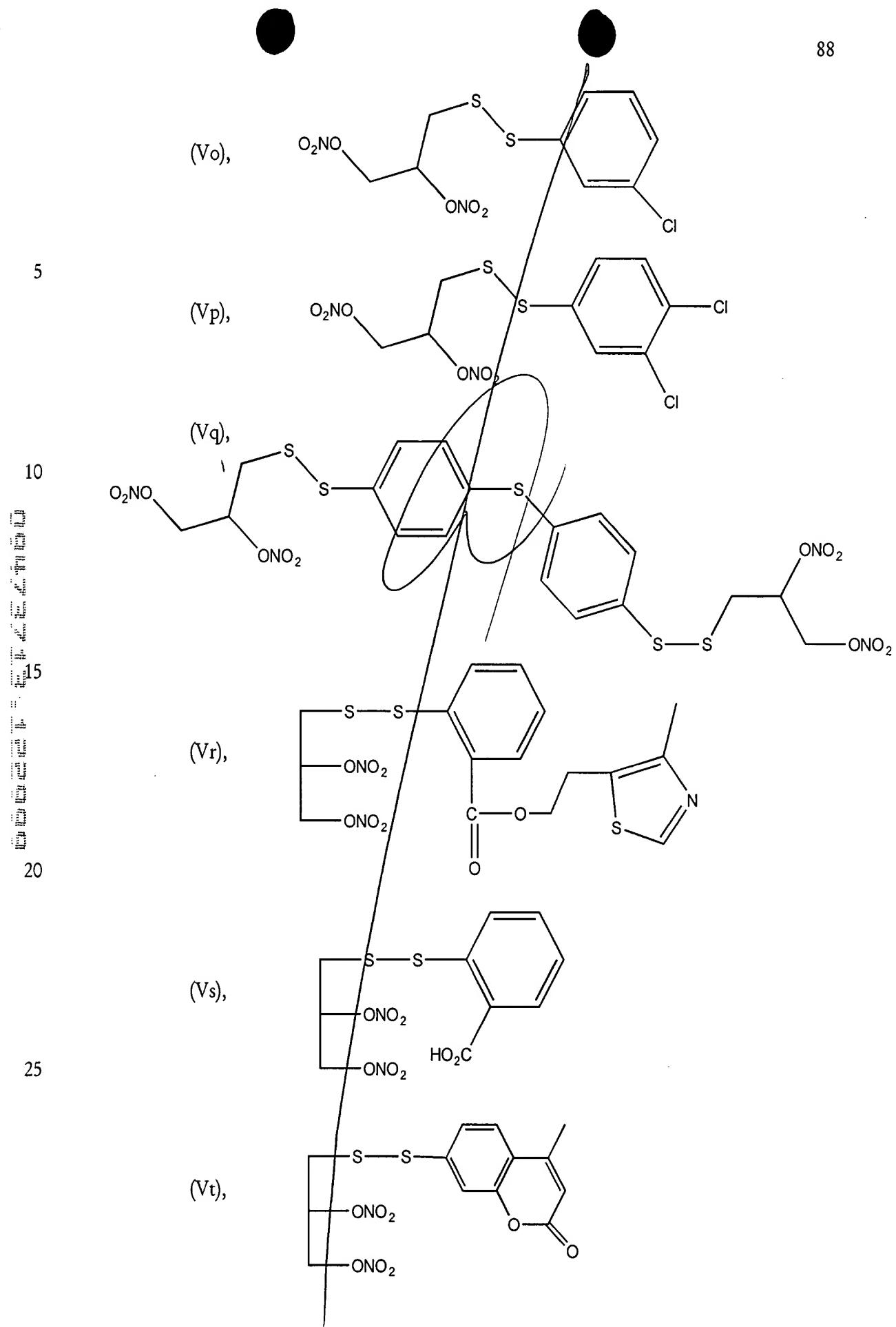


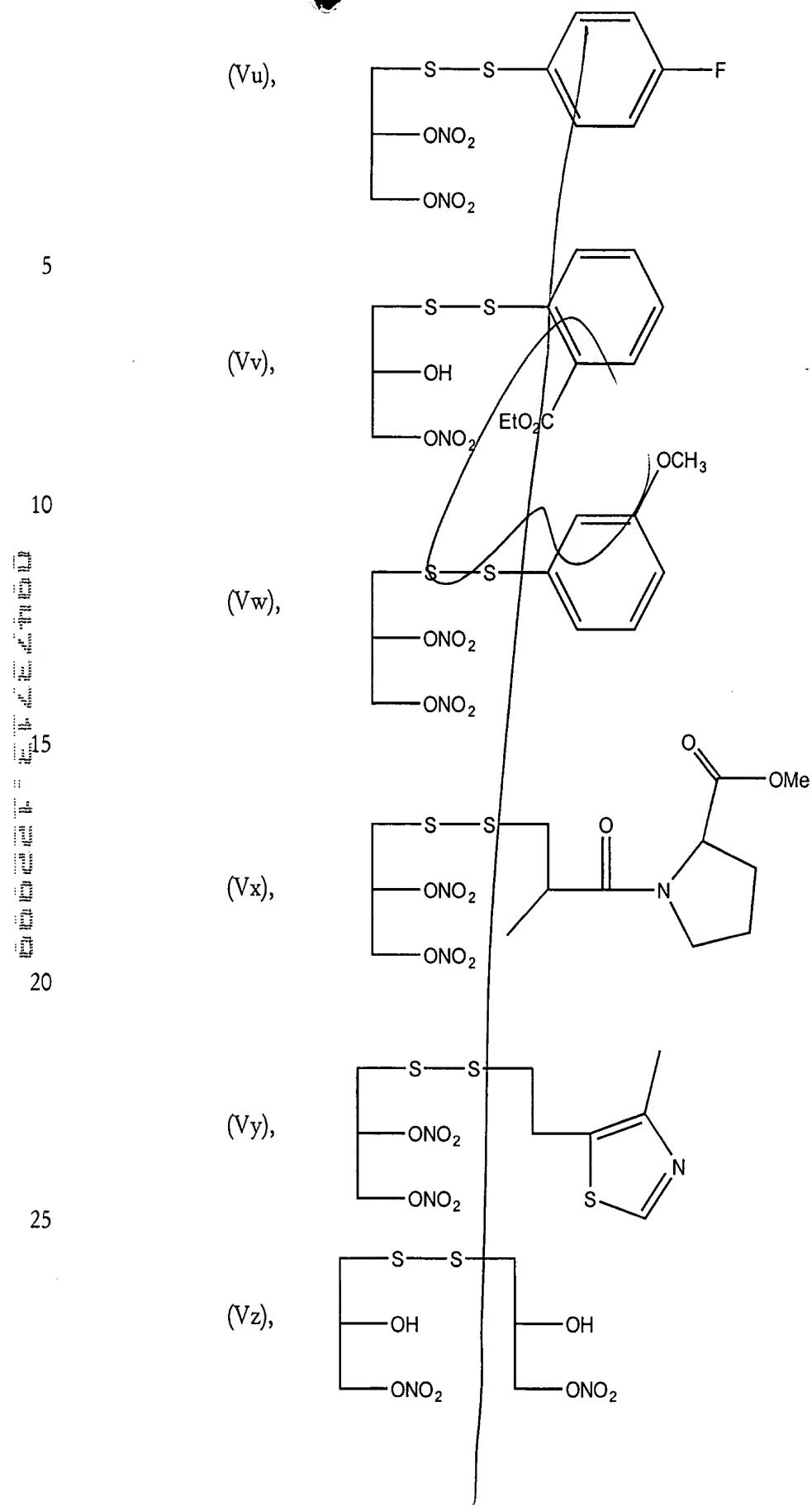
(Vh),

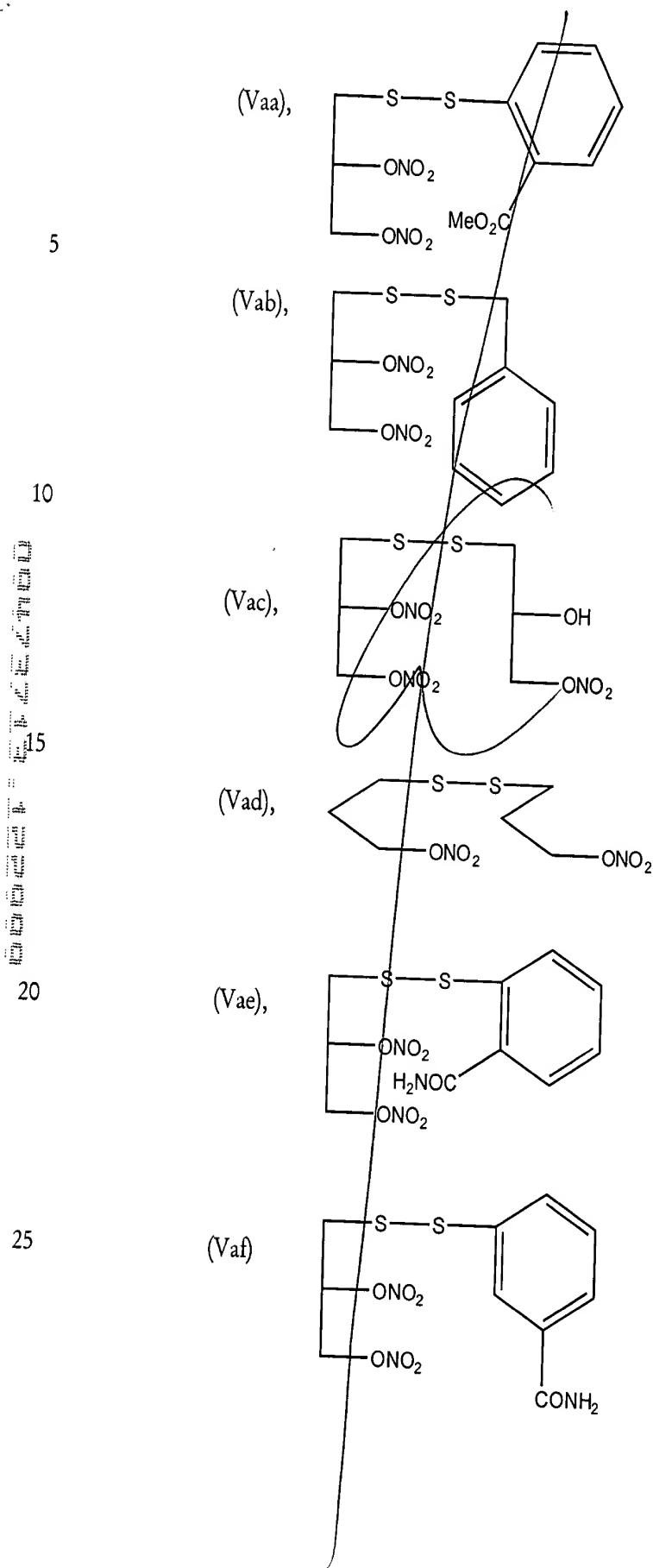
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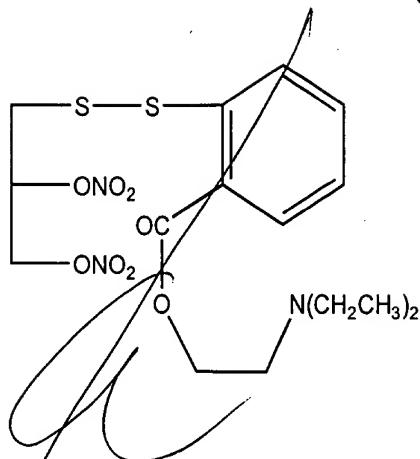






and (Vag).

5



10

add
R3

add
C27